

Fig. 1

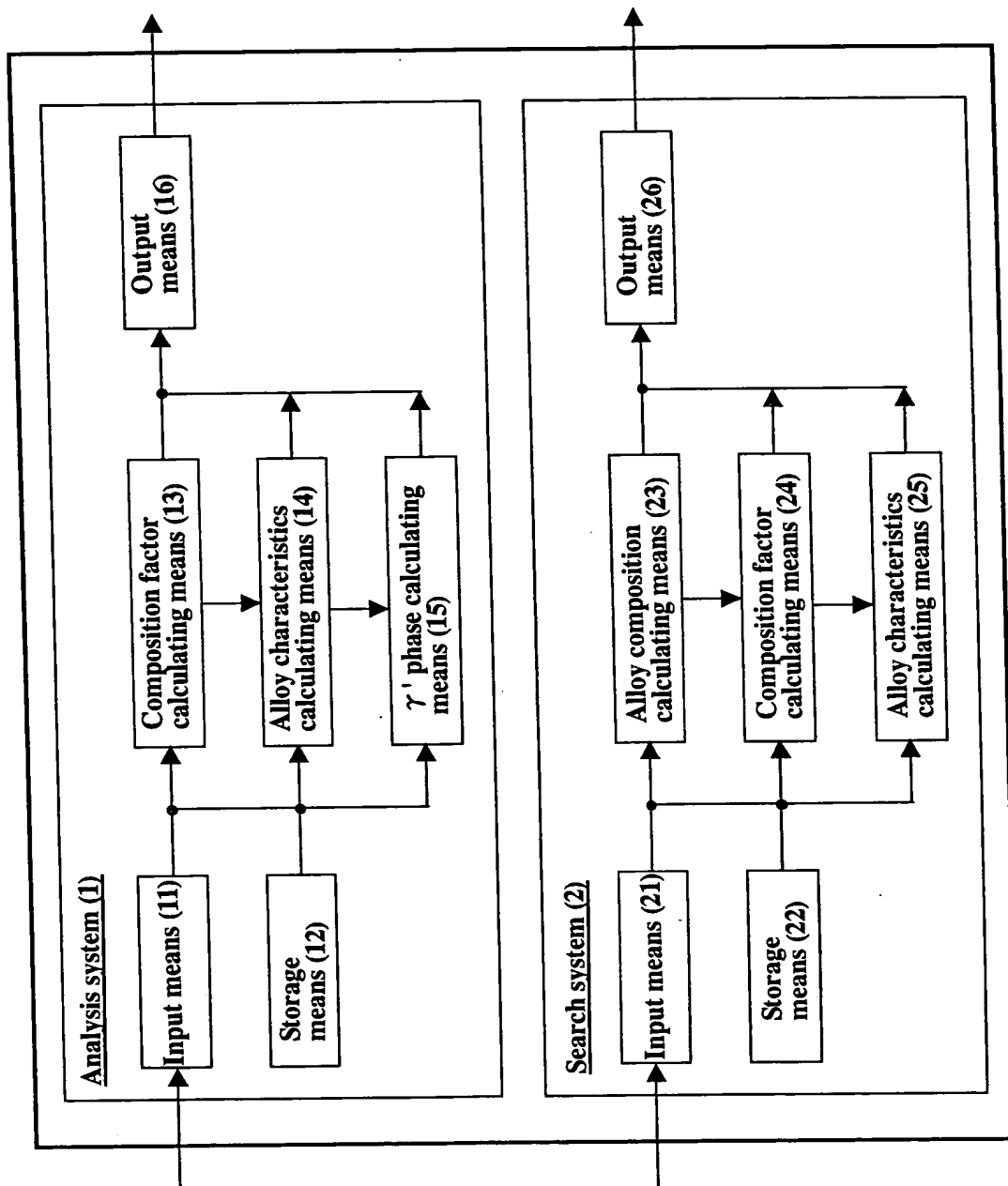


Fig. 2

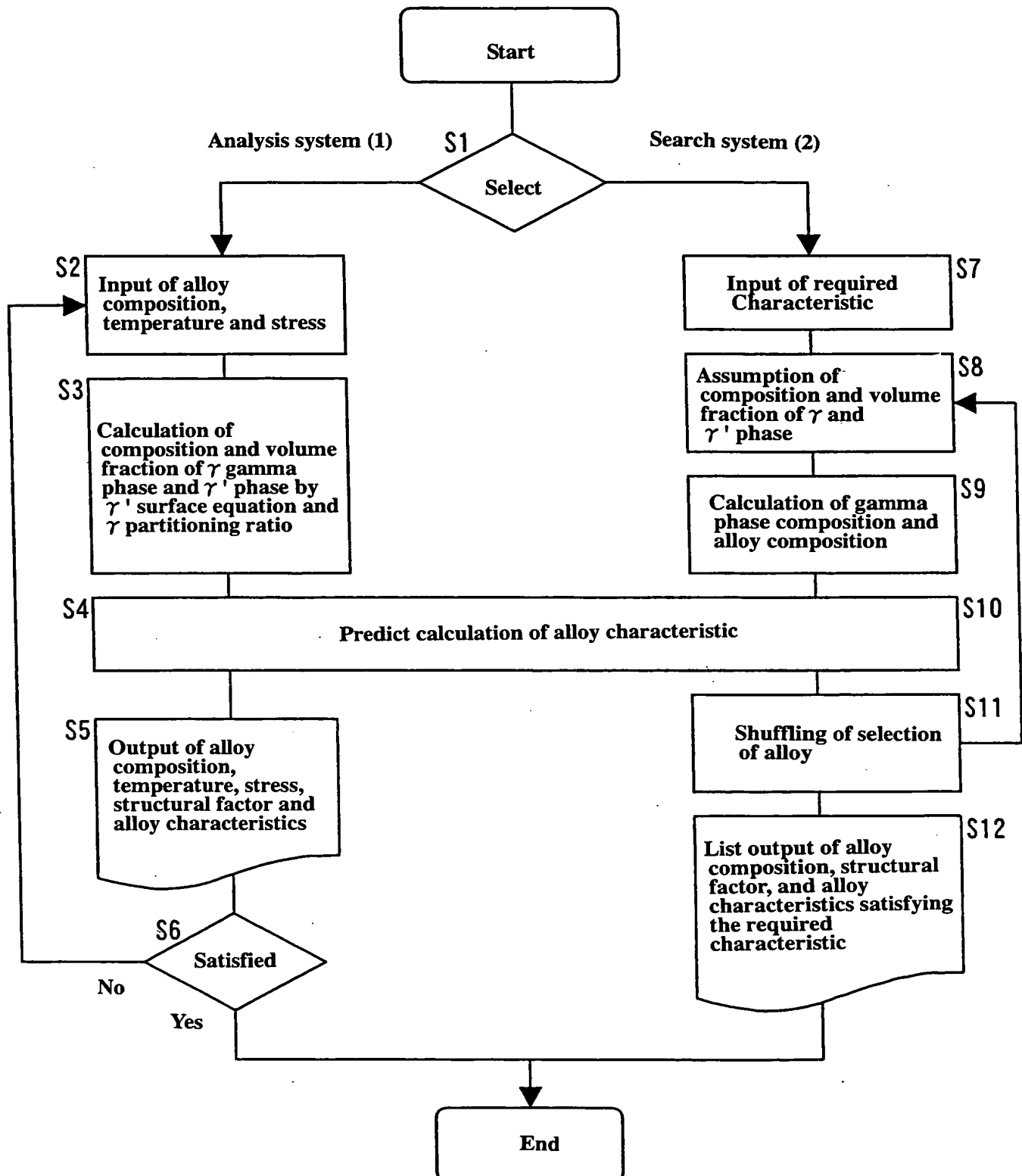


Fig. 3

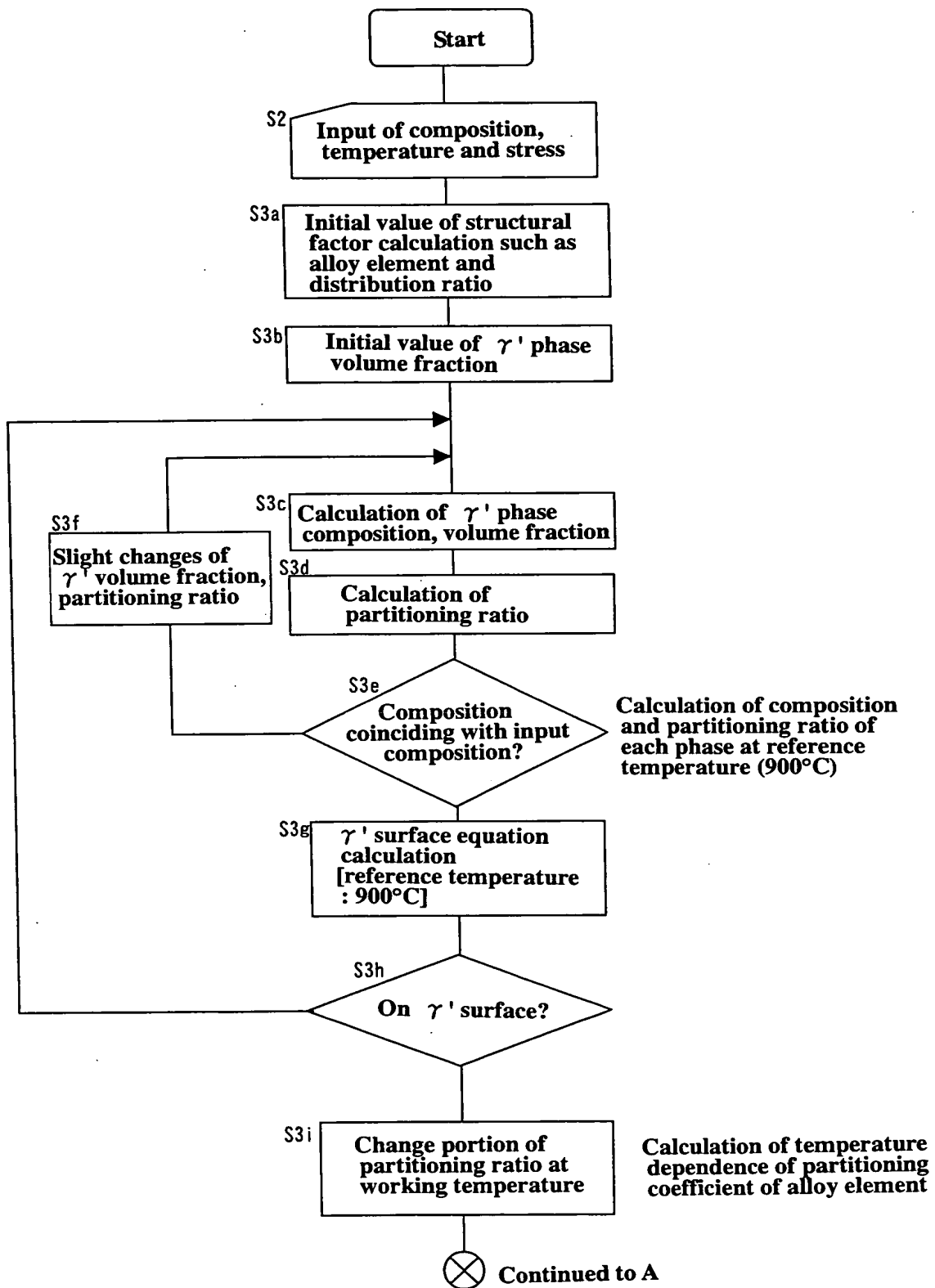


Fig. 4

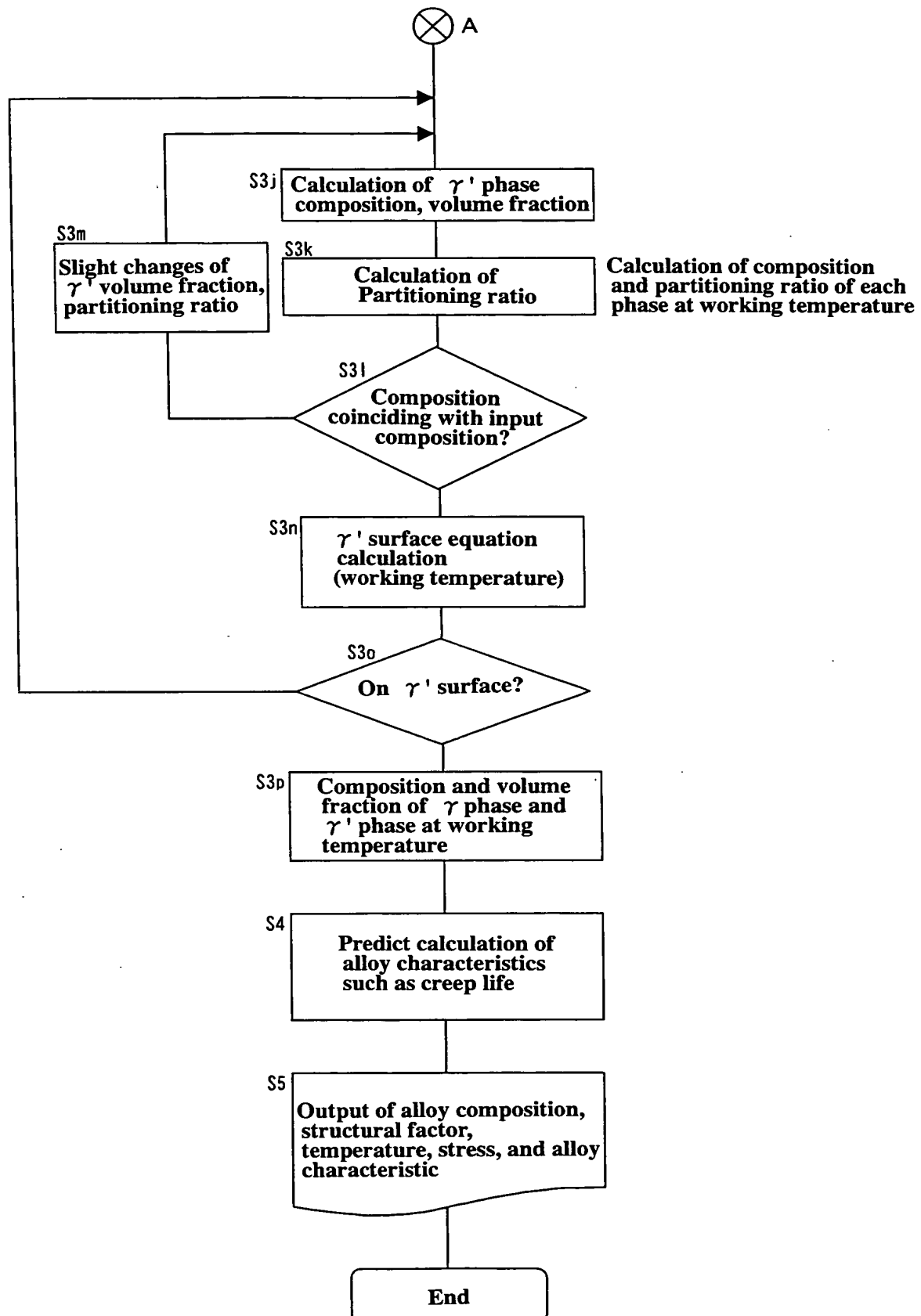


Fig. 5

ALLOY TMS-138 *** Phase & Properties Calculation (at 1100. C/ 137. OMPa ***PGM*

	Ni	Co	Cr	Mo	W	Al	Ti	Nb
(WT%)	63.60	5.88	2.94	2.94	5.88	5.88	0.00	0.00
(AT%)	67.74	6.24	3.54	1.92	2.00	13.62	0.00	0.00
GP	68.04	4.51	2.22	1.00	1.80	18.12	0.00	0.00
G	64.54	10.83	7.14	3.57	2.33	4.52	0.00	0.00
	Ta	Hf	Re	Ir	Ru	Rh	Pd	Pt
(WT%)	5.88	0.10	4.90	0.00	2.00	0.00	0.00	0.00
(AT%)	2.03	0.04	1.65	0.00	1.24	0.00	0.00	0.00
GP	2.77	0.05	0.58	0.00	0.92	0.00	0.00	0.00
G	0.61	0.01	4.29	0.00	2.16	0.00	0.00	0.00
Fraction. Gp	Lat. Gp (A)		Lat. G (A)		Lat. Misfit (%)			
	0.57		3.65660		-0.36769			
Liq (C)	Sol1 (C)		Sol2 (C)		Solv (C)		Window (C)	
	1409.5		1390.2		1301.4		44.4	
SI (900. C)	Density		El. (%)		R. A (%)		Creep life (h)	
	1.442 (1.251)		9.012		20.75		30.53	
							503.1+/-85.9	

ALLOY TMS-138 *** Phase & Properties Calculation (at 900. C/ 392. OMPa ***PGM*

	Ni	Co	Cr	Mo	W	Al	Ti	Nb
(WT%)	63.60	5.88	2.94	2.94	5.88	5.88	0.00	0.00
(AT%)	67.74	6.24	3.54	1.92	2.00	13.62	0.00	0.00
GP	69.25	4.08	1.84	1.14	1.84	17.91	0.00	0.00
G	64.54	10.83	7.14	3.57	2.33	4.52	0.00	0.00
	Ta	Hf	Re	Ir	Ru	Rh	Pd	Pt
(WT%)	5.88	0.10	4.90	0.00	2.00	0.00	0.00	0.00
(AT%)	2.03	0.04	1.65	0.00	1.24	0.00	0.00	0.00
GP	2.70	0.05	0.40	0.00	0.80	0.00	0.00	0.00
G	0.61	0.01	4.29	0.00	2.16	0.00	0.00	0.00
Fraction. Gp	Lat. Gp (A)		Lat. G (A)		Lat. Misfit (%)			
	0.68		3.64031		-0.29827			
Liq (C)	Sol1 (C)		Sol2 (C)		Solv (C)		Window (C)	
	1409.5		1390.2		1301.4		44.4	
SI (900. C)	Density		El. (%)		R. A (%)		Creep life (h)	
	1.442 (1.251)		9.012		22.39		22.45	
							1015.5+/-313.6	

Fig. 6